

CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- Before this Amendment: Claims 1-36.
- After this Amendment: Claims 1-36

Non-Elected, Canceled, or Withdrawn claims: None

Amended claims: 1-36

New claims: None

Claims:

1. (Currently Amended) A method comprising:
retrieving an intermediate node policy having one or more protocol requirements for messages being transmitted to or from the intermediate node characterizing communication properties supported by an intermediate node, the intermediate node being between a source node and a destination node in a communication path;
forming a first policy-compliant message in accordance with the intermediate node policy, the first policy-compliant message including a request for a destination node policy having one or more protocol requirements for messages being transmitted to or from the characterizing communication properties supported by the destination node.

2. (Currently Amended) ~~[[A]] The~~ method as recited in claim 1 further comprising:

transmitting the first policy-compliant message to the intermediate node;
receiving the destination node policy;
forming a second policy-compliant message in accordance with both the intermediate node policy and the destination node policy.

3. (Currently Amended) ~~[[A]] The~~ method as recited in claim 1 wherein the forming operation further comprises forming a first policy-compliant message including a source node policy having one or more protocol requirements for messages being transmitted to or from the source node characterizing communication properties supported by the destination node.

4. (Currently Amended) ~~[[A]] The~~ method as recited in claim 1 further comprising:

retrieving the destination node policy;
forming a second policy-compliant message, the second policy-compliant message including an underlying message, the second policy-compliant message conforming to the destination node policy;

forming a third policy-compliant message, the third policy-compliant

message including the second policy-compliant message, the third policy-compliant message conforming to the intermediate node policy.

5. (Currently Amended) ~~[[A]] The~~ method as recited in claim 2 further comprising determining whether the destination node policy specifies an additional intermediate node.

6. (Currently Amended) ~~[[A]] The~~ method as recited in claim 2 further comprising:

determining whether the destination node policy specifies an additional intermediate node;

if the destination node policy specifies an additional intermediate node retrieving a policy from the additional intermediate node.

7. (Currently Amended) ~~[[A]] The~~ method as recited in claim 2 further comprising:

determining whether the destination node policy specifies an additional intermediate node;

if the destination node policy specifies an additional intermediate node forming a third policy-compliant message in accordance with the intermediate node policy, the third policy-compliant message including a request for an

additional intermediate node policy having one or more protocol requirements for messages being transmitted to or from the additional intermediate node
~~characterizing communication properties supported by the additional~~
~~intermediate node.~~

8. (Currently Amended) ~~[[A]]~~ The method as recited in claim 1 further comprising determining whether the intermediate node policy is compatible with a source node policy having one or more protocol requirements for messages being transmitted to or from the source node ~~characterizing communication properties supported by the source node.~~

9. (Currently Amended) ~~[[A]]~~ The method as recited in claim 1 further comprising determining whether the intermediate node policy is compatible with a source node policy having one or more protocol requirements for messages being transmitted to or from the source node ~~characterizing communication properties supported by the source node~~, wherein the determining operation comprises receiving a notification from a service that the intermediate node policy is compatible with the source node policy.

10. (Currently Amended) ~~[[A]]~~ The method as recited in claim 1 wherein the retrieving operation comprises incrementally receiving the intermediate node

policy.

11. (Currently Amended) ~~[[A]] The method as recited in claim 1 wherein the retrieving operation comprises receiving the intermediate node policy from a node other than the intermediate node.~~

12. (Currently Amended) ~~[[A]] The method as recited in claim 1 wherein the retrieving operation comprises reading the intermediate node policy from a cache memory at the source node.~~

13. (Currently Amended) ~~A computer-readable storage medium having a plurality of executable programming instructions stored thereon which, when operated, perform operations comprising program-product-encoding a computer program for executing on a computer system a computer process, the computer process comprising:~~

~~retrieving an intermediate node policy and a destination node policy, the intermediate node policy having one or more protocol requirements for messages being transmitted to or from an intermediate node characterizing communication properties supported by an intermediate node and the destination node policy having one or more protocol requirements for messages being transmitted to or from a destination node characterizing communication properties supported by a~~

~~destination node~~, the intermediate node being between a source node and the destination node in a communication path;

applying the intermediate node policy and the destination node policy to an underlying message in order of the destination node policy followed by the intermediate node policy.

14. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product~~ as recited in claim 13 wherein the applying operation comprises:

creating a first policy-compliant message including the underlying message, the first policy-compliant message being created according to the destination policy;

creating a second policy-compliant message including the first policy-compliant message, the second policy-compliant message being created according to the intermediate policy.

15. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product~~ as recited in claim 13 ~~wherein the operations further comprise further-comprising~~ selecting ~~one of the one or more protocol requirements a~~ policy-expression from the intermediate node policy.

16. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product as recited in claim 13 wherein the operations further comprise further-comprising determining whether the intermediate node policy is compatible with a source node policy having one or more protocol requirements for messages being transmitted to or from the source node characterizing communication properties supported by the source node.~~

17. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product as recited in claim 13 wherein the operations further comprise further-comprising determining whether the destination node policy specifies an additional intermediate node in the communication path.~~

18. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product as recited in claim 13 wherein the operations further comprise further-comprising:~~

determining whether the destination node policy specifies an additional intermediate node in the communication path;

if the destination node policy specifies an additional intermediate node in the communication path, retrieving a policy from the additional intermediate node.

19. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product~~ as recited in claim 13 wherein the retrieving operation comprises forming a request message, the request message including a request for the destination node policy and conforming to the intermediate node policy.

20. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product~~ as recited in claim 13 wherein the retrieving operation comprises retrieving one or more of the intermediate node policy and the destination node policy from a node other than the intermediate node, the destination node, and the source node.

21. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product~~ as recited in claim 13 wherein the retrieving operation comprises requesting each of the intermediate node policy and the destination node policy in order of the intermediate node followed by the destination node.

22. (Currently Amended) ~~[[A]] The computer-readable storage medium program-product~~ as recited in claim 13 wherein the retrieving operation comprises incrementally receiving at least one of the intermediate node policy and the destination node policy.

23. (Currently Amended) ~~[[A]] The computer-readable storage medium~~
~~program-product~~ as recited in claim 13 wherein the retrieving operation
comprises reading at least one of the intermediate node policy and the
destination node policy from a cache memory at the source node.

24. (Currently Amended) ~~[[A]] The computer-readable storage medium~~
~~program-product~~ as recited in claim 13 ~~wherein the operations further comprise~~
~~further comprising~~ determining whether a message from the intermediate node
conforms to a source node policy ~~having one or more protocol requirements for~~
~~messages being transmitted to or from the source node characterizing~~
~~communication properties supported by the source node.~~

25. (Currently Amended) A system comprising:
~~a source node policy having protocol parameters related to a source node;~~
~~a processor;~~
~~a policy retriever configured to be operated by the processor to retrieve~~
~~retrieving an intermediate node policy having one or more protocol requirements~~
~~for messages being transmitted to or from having protocol parameters related to~~
~~an intermediate node between the a source node and a destination node in a~~
~~communication path;~~

~~a message generator configured to be operated by the processor to~~

~~generate~~ ~~generating~~ a request message in accordance with the intermediate node policy, the request message including a request for a destination node policy ~~having one or more protocol requirements for messages being transmitted to or from having protocol parameters related to the destination node.~~

26. (Currently Amended) ~~[[A]] The~~ system as recited in claim 25 wherein the policy retriever compares ~~the~~ a source node policy ~~having one or more protocol requirements for messages being transmitted to or from the source node~~ to the intermediate node policy to determine whether the source node policy is compatible with the intermediate node policy.

27. (Currently Amended) ~~[[A]] The~~ system as recited in claim ~~[[25]] 26~~ wherein the policy retriever selects ~~one of the protocol requirements~~ a policy expression from the intermediate node policy based on the source node policy.

28. (Currently Amended) ~~[[A]] The~~ system as recited in claim ~~[[25]] 26~~, wherein the message generator further transmits a message to the intermediate node, the message including at least a portion of the source node policy.

29. (Currently Amended) ~~[[A]] The~~ system as recited in claim 25, wherein the policy retriever determines whether the intermediate node policy or

the destination node policy specifies an additional intermediate node in the communication path.

30. (Currently Amended) ~~[[A]] The system as recited in claim ~~[[25]]~~ 26,~~
further comprising a policy generator generating the source node policy, wherein
generating comprises generating ~~the one or more protocol requirements-a~~
~~plurality of policy expressions~~ and at least one relationship operator associated
with the ~~one or more protocol requirements-plurality of policy expressions~~.

31. (Currently Amended) ~~[[A]] The system as recited in claim 30,~~
wherein the policy generator generates a usage attribute related to one of the
~~one or more protocol requirements-plurality of policy expressions~~.

32. (Currently Amended) ~~[[A]] The system as recited in claim ~~[[25]]~~ 26,~~
wherein the ~~one or more protocol requirements of the source node policy~~
comprises ~~one or more policy expressions specifying~~ at least one of:

- a security protocol;
- a routing parameter;
- an encryption algorithm;
- an audit trail;
- a privacy parameter.

33. (Currently Amended) ~~[[A]] The system as recited in claim ~~[[25]]~~ 26,~~
wherein the source node policy ~~further comprises:~~

~~the one or more protocol requirements a plurality of policy expressions~~
specifying protocol parameters;

one or more operators related to the ~~one or more protocol requirements~~
~~plurality of policy expressions~~, the one or more operators specifying a
relationship between the ~~one or more protocol requirements plurality of policy~~
~~expressions~~.

34. (Currently Amended) ~~[[A]] The system as recited in claim ~~[[25]]~~ 26,~~
wherein the source node policy ~~further comprises~~ an input policy characterizing
input protocol parameters and an output policy characterizing output protocol
parameters.

35. (Currently Amended) A system comprising:
~~a processor;~~
a policy retriever ~~means to be operated by the processor for retrieving a~~
plurality of policies, each policy ~~having one or more protocol requirements for~~
~~messages being transmitted to or from characterizing protocol parameters~~
~~related to one of a plurality of nodes, the plurality of nodes including at least one~~

intermediate node and a destination node, wherein the retrieving includes requesting each of the intermediate node policy and the destination node policy in order of the intermediate node followed by the destination node;

means to be operated by the processor for applying each of the plurality of policies to a message transmitted to the destination node, such that the message conforms to each of the plurality of policies, wherein the applying includes:

determining whether the intermediate node policy is compatible with a source node policy having one or more protocol requirements for messages being transmitted to or from the source node;

in response to the determining, creating a first policy-compliant message including the underlying message, the first policy-compliant message being created according to the destination policy and creating a second policy-compliant message including the first policy-compliant message, the second policy-compliant message being created according to the intermediate policy.

36. (Currently Amended) ~~[[A]] The system as recited in claim 35 wherein the means for applying comprises a message generator selecting one of the one or more protocol requirements a policy expression from each of the plurality of policies, each selected policy expression being compatible with a source policy related to a source node.~~